CLAIMS

1. A method of proliferating eukaryotic cells, comprising the step of introducing synthetic low density lipoprotein (sLDL) particles to a cell culture and allowing cells in the culture to proliferate.

2. The method according to claim 1 wherein the sLDL particles are peptide free and enable at least a 20% increase in cell number to occur in comparison to cells grown in the presence of foetal calf serum (FCS) or other serum-free lipid supplements.

3. The method according to claim 1 wherein the sLDL particles comprise a peptide and enable at least a 50% increase in cell number to occur in comparison to cells grown in the presence of foetal calf serum (FCS) or other serum-free lipid supplements.

4. A method of identifying an sLDL particle for use as a cell growth lipid supplement for a particular cell type, comprising the steps of:

a) providing an initial cell culture containing cells of the particular cell type;

b) adding sLDL particles of defined composition and concentration to said culture medium;

c) allowing the cells to proliferate for a period of time; and

d) determining a level of proliferation of the cells.

5. The method according to claim 4 wherein the cells are mammalian cells, such as U937, NSO, CHO, fibroblasts, hybridoma cell, myeloma cells and cellular assemblies such as embryos or pancreatic cells.

6. A cell culture medium comprising sLDL particles according to the present invention which particles comprise cholesterol and/or cholesterol ester wherein the total concentration of cholesterol and cholesterol ester is greater than 0.009 mg/ml of culture medium.

7. The method according to claim 6 wherein the total cholesterol content is greater than 0.018 mg/ml.

8. Use of sLDL particles as a supplement to facilitate the growth of NSO cells.